



Reliability Driven®

Service Bulletin No. 445

MODEL J4500	TYPE Field Change Program	SECTION/GROUP 7-Electrical	DATE Mar. 24, 2017
SUBJECT TRANSMISSION HARNESS ROUTING			
CONDITIONS			

NOTICE

MCI is informing owners of the J4500 model coaches listed in this bulletin that MCI Procedure 7-135 must be implemented in conjunction with FCP Service Bulletin 445.

Upon completion of the outlined retrofit steps in FCP Service Bulletin 445, customers are instructed to contact the MCI Fleet Support Technical Center at 1-800-241-2947 to schedule an appointment to have the specialized trained retrofit outlined in MCI Procedure 7-135 performed on the coach.

The transmission harness and connector retrofit is NOT complete, and may be subject to water migration into the transmission connector and harness, until both the FCP Service Bulletin 445 and MCI Procedure 7-135 have been performed.

Customer Complaint:

Motor Coach Industries ("MCI") has become aware that the J4500 series coaches listed in this bulletin may experience water migration into the transmission connector and harness. In addition, the potential may exist whereas the transmission interface harness wire loom may wear due to stress or movement at the point of existing p-clamps or tyrap.

Damage to the transmission interface harness wiring may result in transmission codes, the PBSS (pushbutton shift selector) not shifting, or transmission failure.

Cause:

Transmission harness routing.

Corrective Action:

As a result, MCI strongly urges owners of the MY2013, MY 2014, MY 2015, MY 2016 and MY2017 J4500 model coaches listed in this bulletin to implement the steps in this procedure as soon as possible.

66554	66648 to 67895	67897 to 67967	67969	67971 to 67975
67977 to 67980	67982 to 67991	67993 to 68046	68049 to 68058	68060 to 68065
68072 to 68080				



Parts

Qty.	New P/N	Description
1	26-07-0125	Kit, Transmission Harness Routing <i>Kit Contents are:</i>
3	07-08-9052	Bracket, Transmission Harness
1	13-11-1387	Bracket, Transmission Bracket
2	07-08-4525	Tie Base, Panduit, TMEH-S10-C100
3	07-08-4526	Tie Base, Panduit, TM3S8-C100
2	07-08-4527	Cable Tie, Heavy Duty, 9 inch
2	07-08-4535	Wrap, Heavy Duty, Bl., 3 inch
2	19-02-6035	DIN9021B, A2/M5
3	19-1-586	Screw, #8-32 x 0.75, Cross, SST
2	19-1-825	Capscrew, Hex, 10-24 x 7/8
3	19-11-1011	Tyrap, Cable, Heavy Duty, 8-4
3	19-2-19	Washer, #8
3	19-2-73	Washer, Lock, #8, Steel
3	19-3-111	Nut, Hex, #8-32, Stainless Steel
2	19-3-228	Nut, Hex, w/Washer, #10-24 UNC
4	19-11-1845	Plug, Cavity
1	19-11-3078	Cable, Double Loop
1	19-01-1536	Capscrew, 1/2-13 x 1.50
1	19-03-0755	Nut, Flg, 1/2 -13
a/r		Loctite, 242

Service Procedure:



**Read this entire procedure before beginning work.
Use Safe Shop Practices At All Times.**



If the steps in this procedure are performed over a pit, chock the tires. Position the ENGINE RUN and ENGINE START switches on the engine compartment remote control box to the OFF position. Allow enough time for components to cool down.

If the steps in this procedure are performed with the coach on a lift, dump the air from the tag axle suspension and raise coach to desired height. Position safety stands underneath the coach in only the specified locations shown in Section 3F in the MCI J4500 Maintenance Manual (as shown in Figure 1 of this document). Support the tag axle.

Ensure that the coach is securely supported before attempting work underneath the coach.

1. Drive the coach over a pit, or use a lift to access the transmission harness.
2. Turn the main battery disconnect switch to the OFF position.

WARNING

DO NOT place safety stands in any other location than shown in Figure 1 and Section 3F in the MCI J4500 Maintenance Manual.

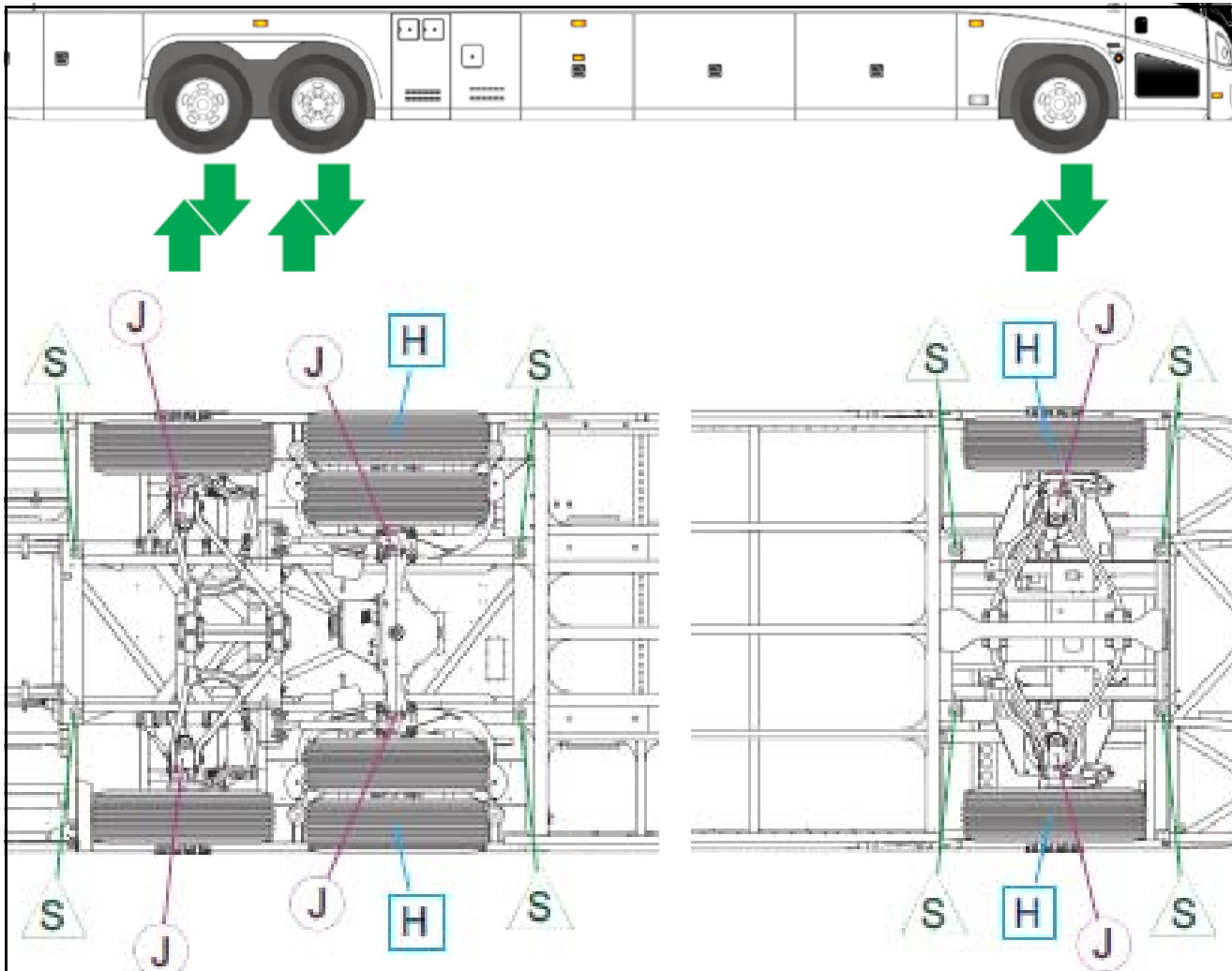


Figure 1. J4500 coach hoisting and safety stands location.

Item	Figure 1 Description
S	Safety Stand (Primary locations)
J	Jacking Point
H	Hoisting Point

3. Locate the transmission harness connector, behind the roadside, tag axle wheel (refer to Figure 2).

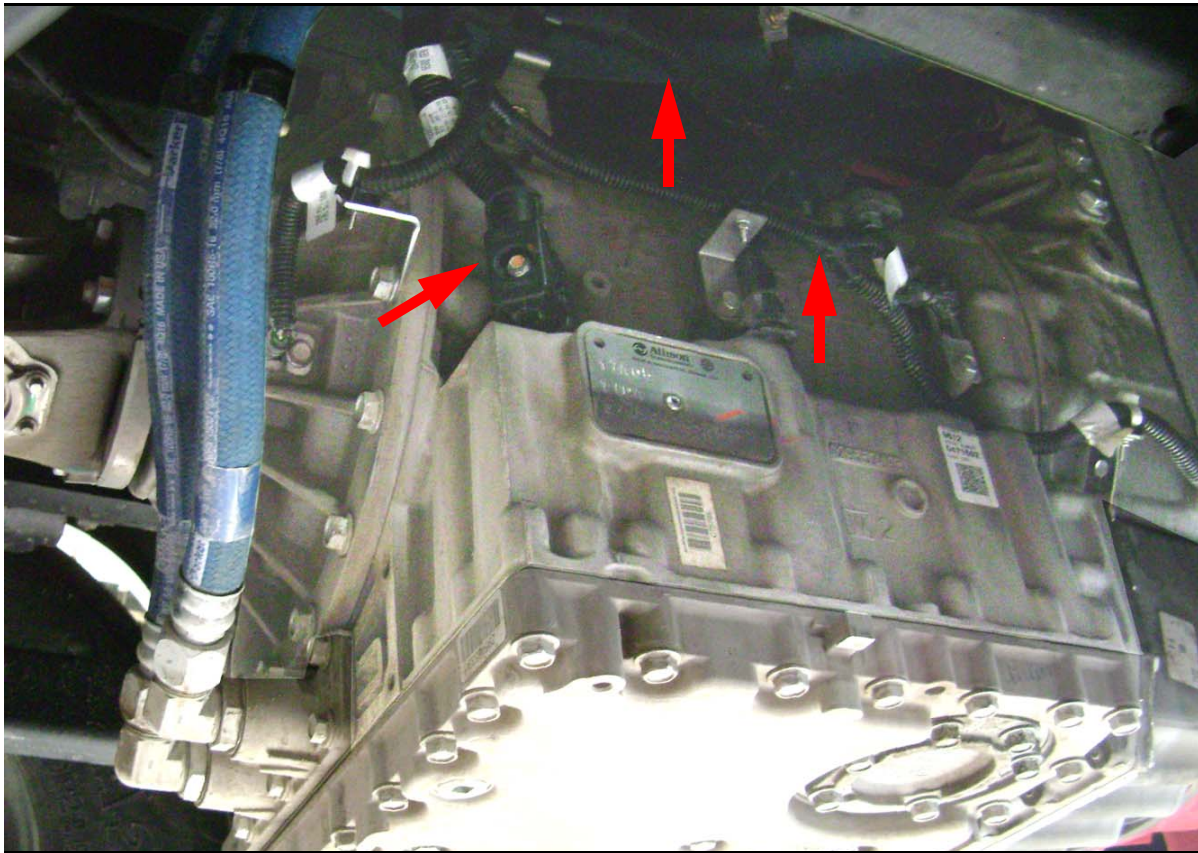


Figure 2. Transmission harness routing.

NOTICE

Visually inspect the transmission harness for:

- Corrosion buildup on the internal pins of the transmission harness connector,
- Chafing or damage to wire(s) at intersection points with p-clams or tyrap,
- Stress on the interface connector.

If any of the above are present upon visible inspection, contact the MCI Fleet Support Technical Center at 1-800-241-2947 for further information.

NOTICE

If the coach is equipped with an Optional engine bay snow pan assembly, remove and retain the six (6) capscrews and fender washers from the assembly. Carefully support the weight and allow the assembly to swivel downwards and hang, supported on the assembly hinge as shown in Figure 3.

If the coach is NOT equipped with an Optional engine bay snow pan assembly, proceed to Step 4.

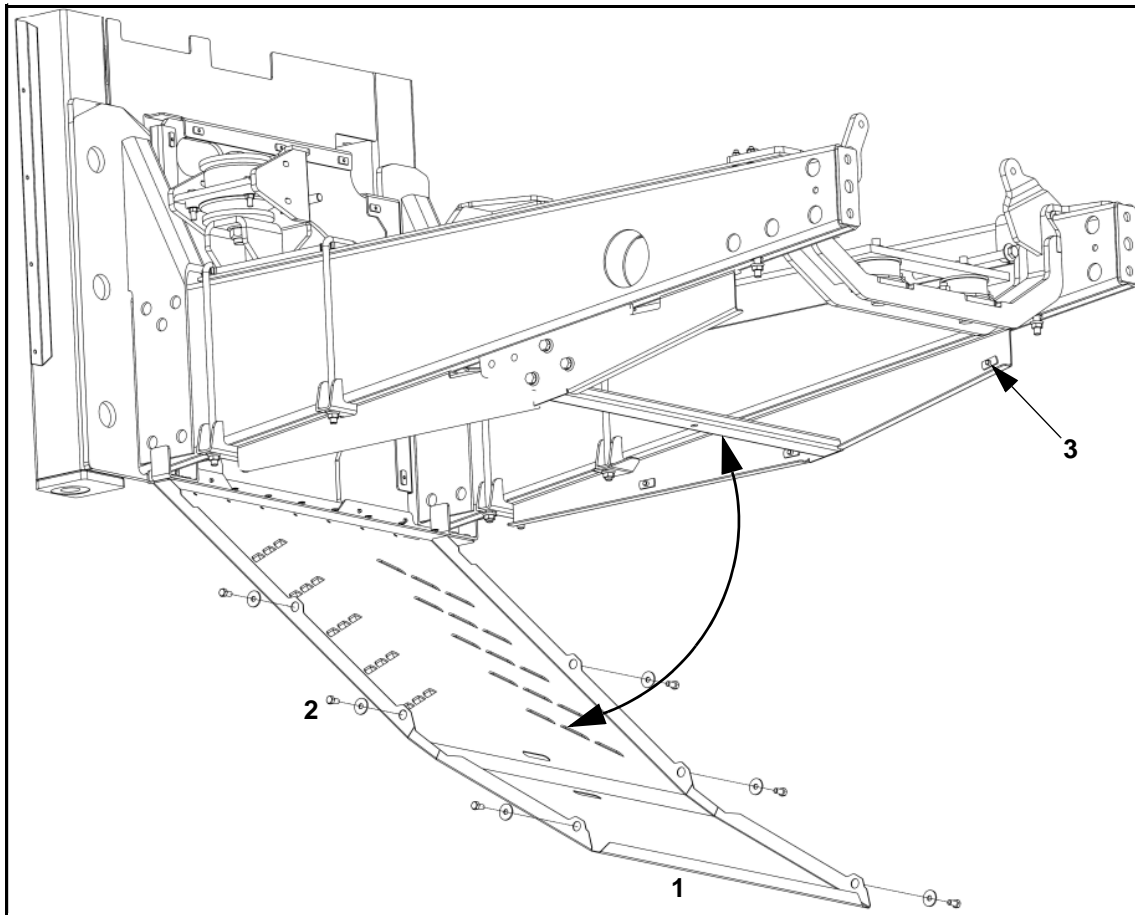


Figure 3. Optional engine bay snow pan.

Item	Figure 3 Description
1	Optional engine bay snow pan assembly
2	Mounting hardware, quantity of six (6). Ref. capscrew p/n is 19-1-22, fender washer p/n is 19-2-119.
3	Nut weld, double tab, quantity of six (6)

4. At the forward section of the transmission, locate the transmission harness connector shown in Figure 4.
5. Using a 8 mm socket, loosen the mounting screw from the face of the transmission harness connector. Carefully pull to disconnect the transmission harness connector (refer to Figure 5).

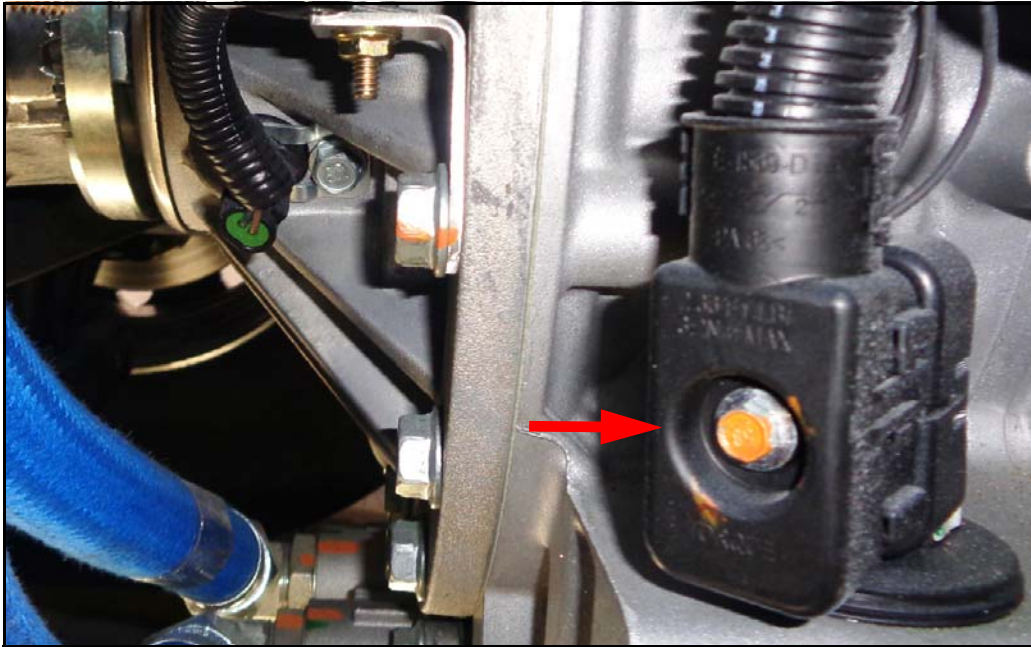


Figure 4. Transmission harness connector location.



Figure 5. Transmission harness connector removed from the interface port.

6. Visually inspect the transmission harness connector and the transmission interface port for corrosion buildup on the internal pins (refer to Figures 6 and 7)

NOTICE

If upon visible inspection there is corrosion buildup on the internal pins as shown in Figures 6 and 7, contact the MCI Fleet Support Technical Center at 1-800-241-2947 for further information.



Figure 6. Evidence of corrosion on the transmission harness connector pins.

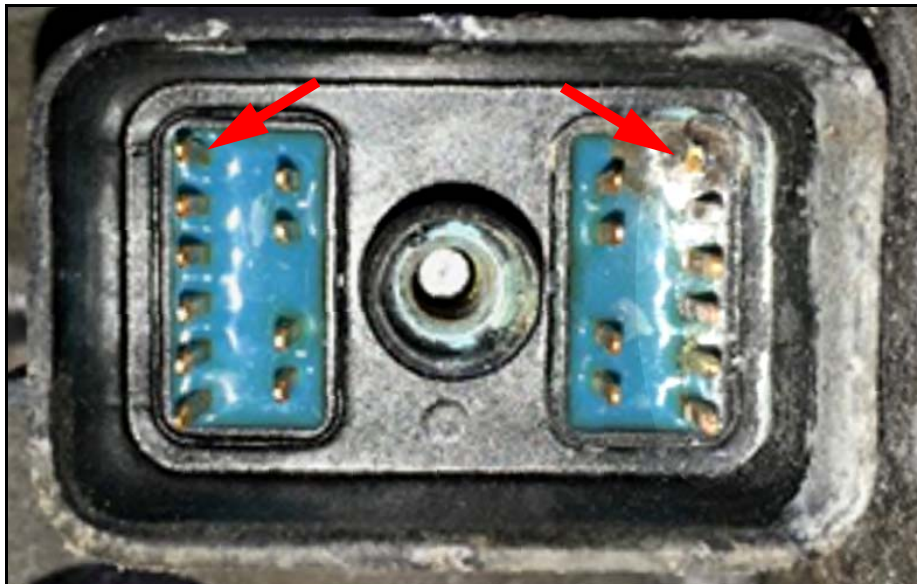


Figure 7. Evidence of corrosion on the transmission interface port.

7. Locate the existing p-clamps shown as Item 1 in Figure 8.
8. Remove and discard the eight (8) existing p-clamps shown in Figure 8, as well as the p-clamps on the dipstick.

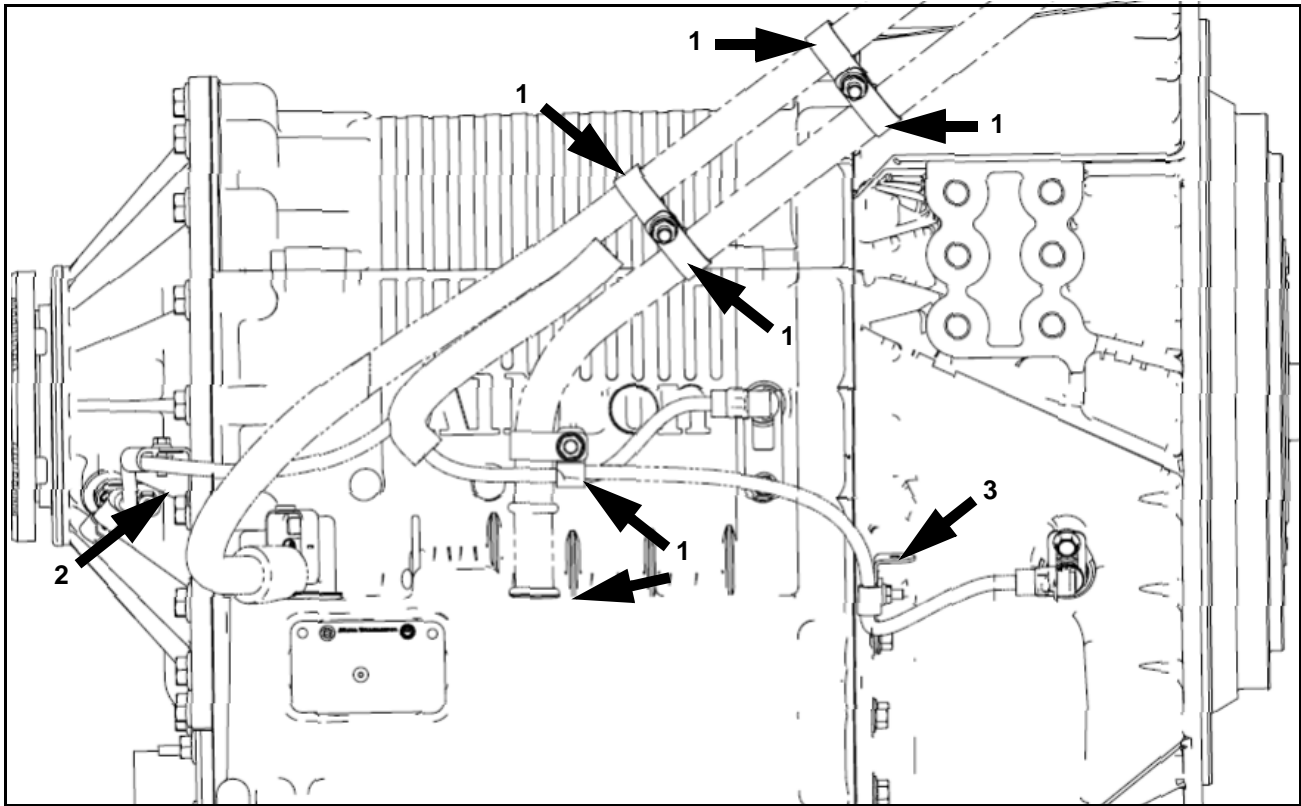


Figure 8. Removal of p-clamps from transmission.

Item	Figure 8 Description
1	Remove and discard existing eight (8) p-clamps
2	Front bracket location
3	Rear bracket location

9. Visually inspect the transmission harness loom at the intersection point of the removed p-clamps. Open the loom at the intersection point of the removed p-clamps and inspect the wrap, wire harness and individual wires for damage (refer to Figure 9).

NOTICE

If upon visible inspection there is damage or corrosion to the wire(s), contact the MCI Fleet Support Technical Center at 1-800-241-2947 for further information.

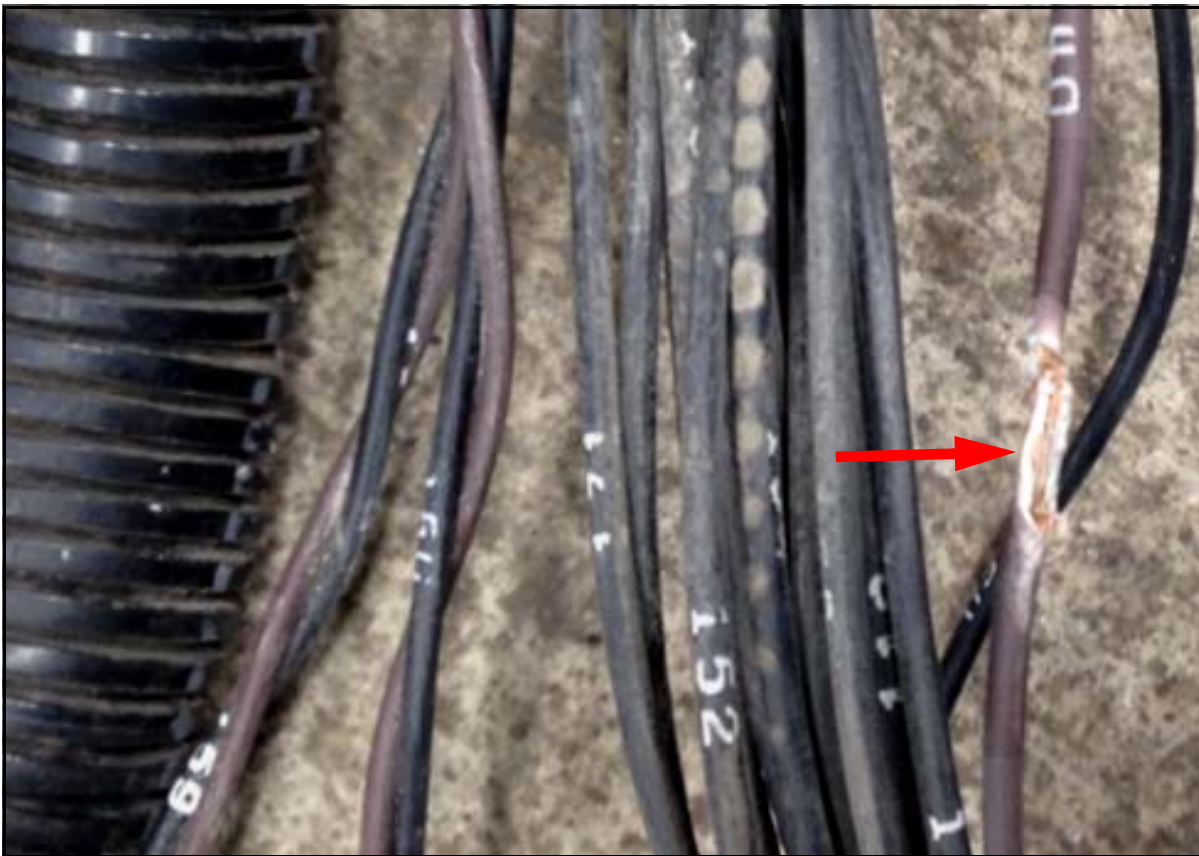


Figure 9. Damaged wire in transmission harness.

NOTICE

If the coach is equipped with an Optional engine bay snow pan assembly, proceed to Step 13 as the existing bracket will be utilized in this retrofit.

If the coach is NOT equipped with an Optional engine bay snow pan assembly, proceed to Step 10.

10. Locate the existing front bracket shown as Item 2 in Figure 8.
11. Remove and discard the existing p-clamp and front bracket. Retain the mounting bolt to be used at a later step in this procedure.
12. Using the existing mounting bolt from Step 11 and the new front bracket, p/n 07-08-9052, secure to the transmission finger tight.
13. Orient the front bracket to a 30 degree angle, as shown in Figure 10. Tighten to secure at designated angle. Torque to 74-89 ft-lbs.
14. Orient and install the new tie base, p/n 07-08-4526, using screw, p/n 19-1-586, nut, p/n 19-3-111, spring washer, p/n 19-2-73 and washer, p/n 19-2-19.

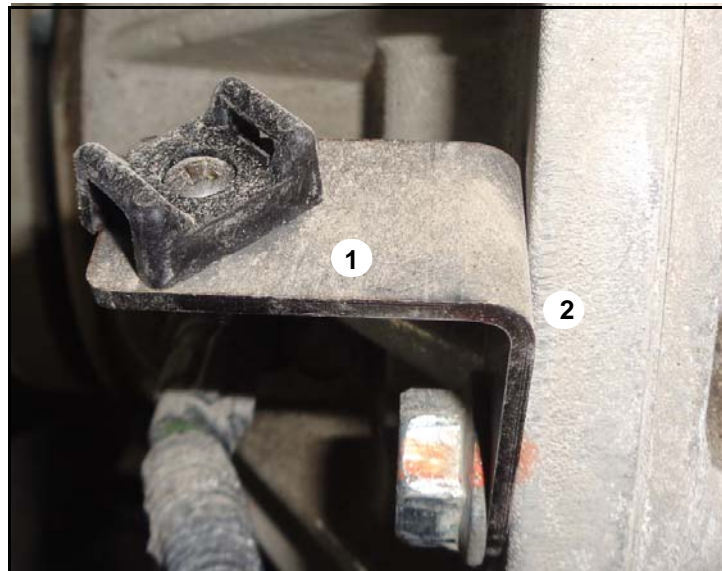


Figure 10. Reference photo of front bracket at 30 degree angle and tie base.

Item	Figure 10 Description
1	Front bracket, p/n 07-08-9052
2	Orient and secure front bracket at a 30 degree angle

15. .Locate the existing rear bracket shown as Item 3 in Figure 8.
16. Remove and discard the existing p-clamp from the existing rear bracket.
17. Orient the rear bracket to a 30 degree angle, as shown in Figure 11. Tighten to secure at designated angle. Torque to 74-89 ft-lbs.
18. Orient and install the new tie base, p/n 07-08-4526, using screw, p/n 19-1-586, nut, p/n 19-3-111, spring washer, p/n 19-2-73 and washer, p/n 19-2-19.

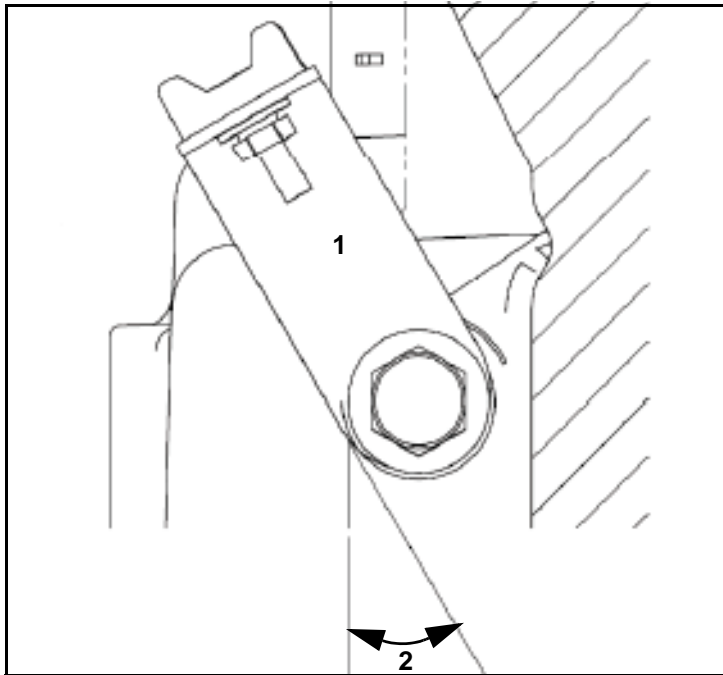


Figure 11. Reference photo of front bracket at 30 degree angle and tie base.

Item	Figure 11 Description
1	Existing rear bracket
2	Orient and secure bracket at a 30 degree angle



Figure 12. Retrofit location guide.

Item	Figure 12 Description
1	Forward cooling bracket retrofit location, refer to Step 19
2	Rearward cooling bracket retrofit mounting hole location, refer to Step 22
3	Dipstick bracket retrofit mounting hole location, refer to Step 25
4	P-clamps to be removed and discarded

19. Locate the forward cooling bracket shown in Figure 13.
20. Remove and retain the existing bracket, screw and nut shown in Figure 13.

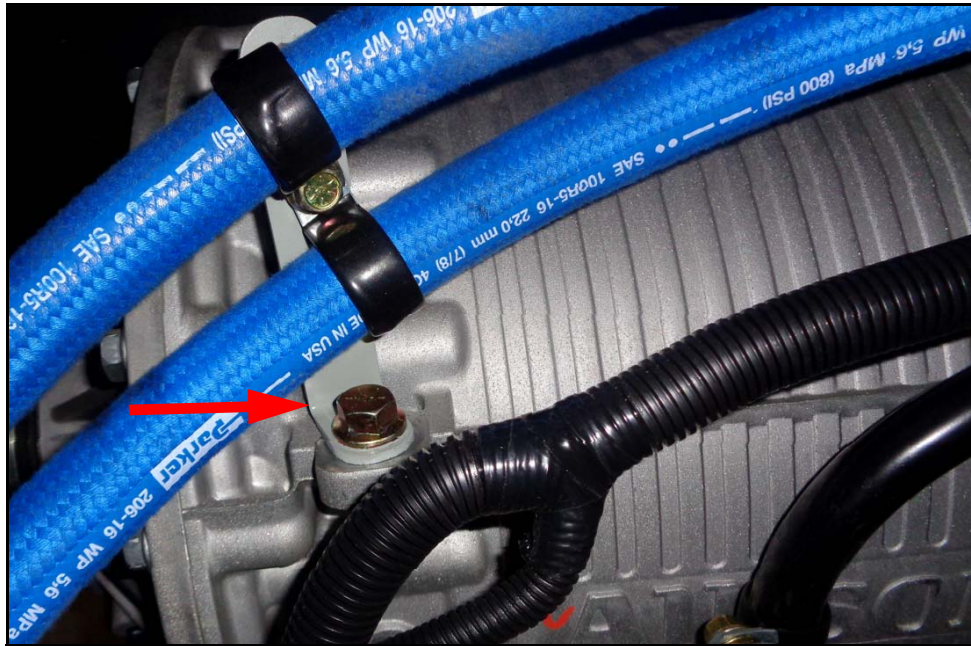


Figure 13. Existing forward cooling bracket.

21. Orient and install the existing bracket, screw and nut with the new bracket, p/n 07-08-9052, tie base, p/n 07-08-4525, screw, p/n 19-1-825, washer, p/n 19-02-6035 and nut, p/n 19-3-228 as shown in Figure 14. Tighten to secure.

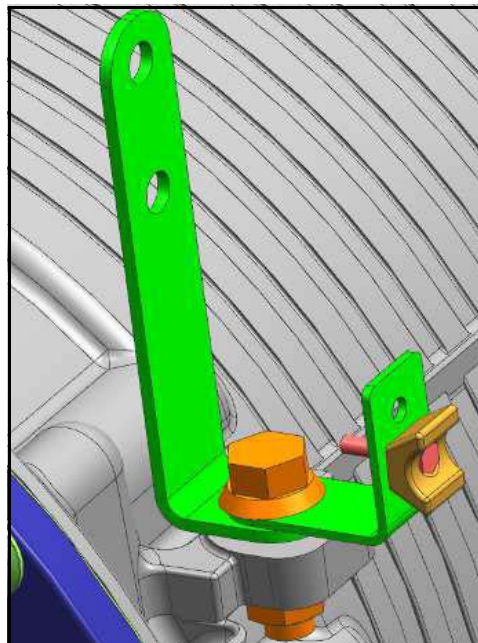


Figure 14. Forward cooling bracket and tie base.

22. Locate the mounting hole shown as Item 2 in Figure 12 as well as Figure 15.

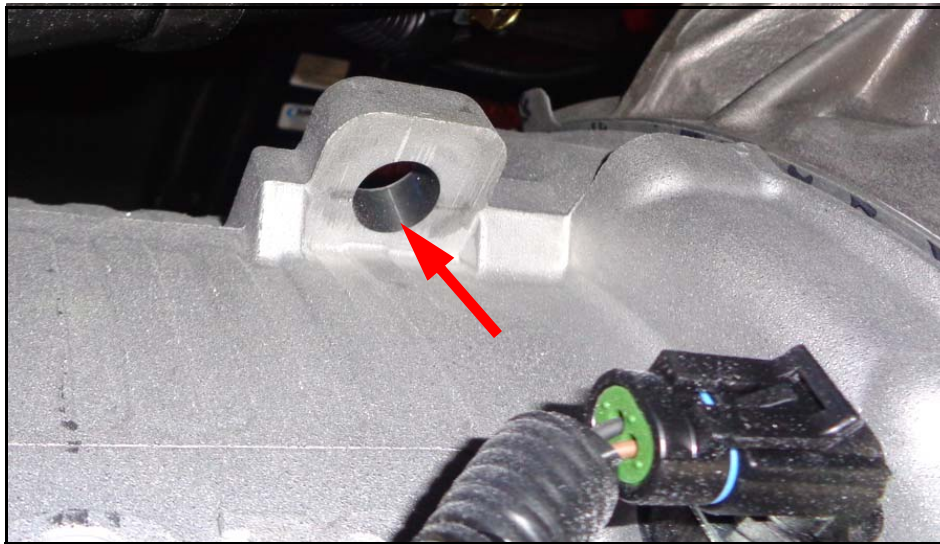


Figure 15. Rear cooling bracket mounting location.

23. On a workbench, assemble the rear cooling bracket assembly using bracket, p/n 13-11-1387, tie base, p/n 07-08-4525, screw, p/n 19-1-825, washer, p/n 19-02-6035 and nut, p/n 19-3-228 as shown in Figure 16.

NOTICE

The bracket assembly must be pushed as far inboard towards the transmission as possible to achieve a 0.50 inch clearance between the transmission harness routing and the dipstick.

24. Apply Loctite 242 to the threads of screw, p/n 19-01-1536. Orient the bracket assembly with screw, p/n 19-01-1536 and nut, 19-03-0755 as shown in Figure 16. Push the bracket assembly as far inboard as the hole will allow and tighten to secure.

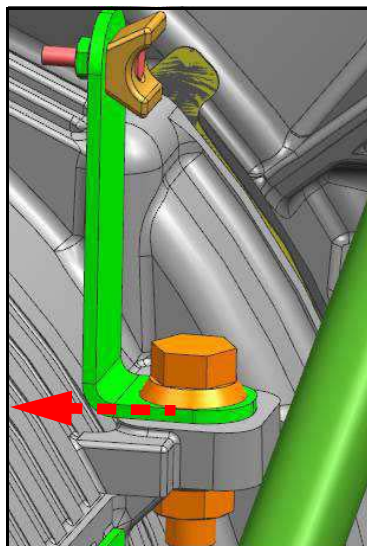


Figure 16. Push the bracket assembly as far inboard as possible to achieve clearance.

25. On a workbench, assemble the dipstick bracket assembly using bracket, p/n 07-08-9025, tie base, p/n 07-08-4526, screw, p/n 19-1-586, lock washer, p/n 19-2-73, washer, p/n 19-2-19 and nut, p/n 19-3-111 as shown in Figure 17.
26. Using the existing dipstick screw, mount the dipstick bracket assembly as shown in Figure 17.



Figure 17. Dipstick bracket and tie base.

27. Remove and discard the three (3) upper dipstick p-clamps shown as Item 4 / Figure 12.

NOTICE

Refer to Figure 18 and Step 28 for orientation and routing of the transmission harness.



Figure 18.

NOTICE

Refer to Figures 19 to 21 for coaches equipped with an Optional severe duty package protection shield.



Figure 19. Optional severe duty package protection shield.

Item	Figure 19 and 20 Description
1	Optional input / turbine speed sensor protection shield / Severe duty option
2	Use existing hole in protection shield to match drill a hole in the extra transmission harness bracket.
3	Mount transmission harness bracket and tie bases as shown in Figure 20



Figure 20. Bracket and tie base install on protection shield.



Figure 21. Transmission harness routing on protection shield.

⚠ CAUTION

To avoid damage to harness loom and wires, use caution when utilizing tyraps.

Only use enough controlled force to prevent the harness from movement without crimping the loom wall.

A tyrap that is too loose or too tight will result in damage to the loom and wires.

28. Locate the front cooling bracket shown in Figure 22 and Item 1 in Figure 18. Orient and install the heavy duty wrap, p/n 07-08-4535, over the transmission harness at the intersection area of the panduit tie base. Using tyrap, p/n 07-08-4527, secure the transmission harness as shown in Figure 22.



Figure 22. Installation of heavy duty wrap over the transmission harness.

29. Locate the rear cooling bracket shown in Figure 23 and Item 2 in Figure 18. Orient and install the heavy duty wrap, p/n 07-08-4535, over the transmission harness at the intersection area of the panduit tie base. Using tyrap, p/n 07-08-4527, secure the transmission harness as shown in Figure 23.



Figure 23. Installation of heavy duty wrap over the transmission harness.

30. Follow the routing of the transmission harness rearwards to the intersection area of the coolant hoses. Visually inspect for contact between the transmission harness and the hoses as shown in Figure 24.

NOTICE

Upon visual inspection, if the transmission harness is contacting the coolant hoses in the area shown in Figure 24, proceed to Step 31.

Upon visual inspection, if the transmission harness is not contacting the coolant hoses in the area shown in Figure 24, proceed to Step 32.



Figure 24. Visual inspection area of contact.

31. Orient and install the double loop cable, p/n 19-11-3078, over the transmission harness and coolant hose as shown in Figure 25, with the cable base positioned in the middle.



Figure 25. Double loop cable installed with base positioning.

32. Locate the front and rear brackets shown in Figure 26 and Items 3 and 5 in Figure 18. Orient and install a tyrap, p/n 19-11-1011, to secure the transmission harness as shown in Figure 24.



Figure 26. Front and rear brackets.

33. Locate the dipstick brackets shown in Figure 27 and Item 4 in Figure 18. Orient and install a tyrap, p/n 19-11-1011, to secure the transmission harness as shown in Figure 27.



Figure 27. Dipstick bracket.



34. Orient the transmission harness connector to the transmission interface port. Using a 8 mm socket and the mounting screw, re-install the transmission harness connector. Torque to 20-24 in-lbs.

NOTICE

If the coach is equipped with an Optional engine bay snow pan assembly, carefully swivel the assembly upwards and secure in position with the existing six (6) capscrews and fender washers. Torque the capscrew to 18-22 ft-lbs.

NOTICE

In addition to MCI Service Bulletin FCP 445, MCI Procedure 7-135 must be performed to prevent transmission failure due to water migration.

35. Contact the MCI Fleet Support Technical Center at 1-800-241-2947 for further retrofit information regarding sealing the open harness connector cavities with plugs outlined in MCI Procedure 7-135.

Procedure Complete.



Mail or fax the completed limited warranty claim form and verification form to MCI's warranty department, or photocopy and mail to:

MCI Fleet Support
Attn: Warranty Department
7001 Universal Coach Drive
Louisville, KY 40258
Fax Number 1-800-360-8886

to receive credit for the hours used to complete this task. Contact the MCI Fleet Support Technical Center at 1-800-241-2947 for any further information.

Field Change Program Conditions:

The parts required for this rework will be supplied without charge.

A labor allowance of 1.3 hours will be granted for this rework on affected J4500 coaches.

This labor allowance will be credited to your MCI Fleet Support Parts Account on receipt of the attached "MCI Field Change Program Verification Form" and a "Warranty Claim Form" as detailed in your Owner Warranty manual to MCI's Warranty department. A "MCI Field Change Program Verification Form" needs to be submitted for each VIN affected. Photocopy the attached "MCI Field Change Program Verification Form" as required for the number of affected coaches in your fleet.

This program will end on October 20, 2017.

Motor Coach apologizes for any inconvenience resulting from this campaign, but urges you to implement this change as soon as possible.

Sincerely,

Motor Coach Industries



Reliability Driven™

MCI FIELD CHANGE PROGRAM (FCP) VERIFICATION

CONTACT INFORMATION	
CUSTOMER NAME: _____	
<small>(PLEASE PRINT)</small>	
FCP INFORMATION – ONE FORM PER UNIT	
FCP#: _____	Coach Model _____ Model Year _____
COACH SERIAL #: <small>(At least the last 5 digits)</small>	DATE COMPLETED __ / __ / __
MILEAGE:	
<u>IMPORTANT:</u> TO RECEIVE CREDIT FOR ANY ALLOWABLE LABOR CHARGES, THIS VERIFICATION FORM MUST BE RETURNED TO MCI UPON COMPLETION OF THE FCP.	
SUBMITTED BY: (Please Print) _____	
	DATE __ / __ / __
TITLE: (Please Print) _____	
SIGNATURE: _____	
COMMENTS: 	

FAX TO: 800-360-8886

MAILING ADDRESS:

**MOTOR COACH INDUSTRIES
ATTN: WARRANTY DEPT.
7001 UNIVERSAL COACH DRIVE
LOUISVILLE, KY 40258**